

WHAT IS CLAIMED IS:

Sub
a4

1. A display device comprising:
a light source for emitting a light;
a light modulation element for modulating the
5 emitted light; and

picture signal inputting means for receiving a
picture signal from the outside and inputting a driving
signal for driving the light modulation element to the
light modulation element, in which the light modulation
10 element modulates the light based on the picture signal
and an image is displayed,

wherein the picture signal inputting means
comprises target light amount calculating means and
light amount controlling means, the target light amount
15 calculating means being means for calculating an
adequate light amount for an image display and the
light amount controlling means being means for
receiving the signal from the target light amount
calculating means and controlling the light so as to
20 obtain a target light amount; and

wherein the picture signal inputting means largely
amplifies the driving signal when the picture signal
has a low luminance and slightly amplifies the driving
signal when the picture signal has a high luminance.

25

2. The display device according to claim 1,
wherein, when the picture signal has a high luminance,

09927479-081301

a pseudo multi gradation processing is executed.

3. The display device according to claim 1,
wherein the light amount controlling means comprises a
5 member for converting the light to a polarization light
flux and a light amount adjusting member for
controlling a permeable amount of the polarization
light flux and wherein by changing a rotational
position of the light amount adjusting member, a light
10 amount is controlled.

4. The display device according to claim 2,
wherein the light amount controlling means comprises a
member for converting the light to a polarization light
15 flux and a light amount adjusting member for
controlling a permeable amount of the polarization
light flux and wherein by changing a rotational
position of the light amount adjusting member, a light
amount is controlled.

5. The display device according to claim 3,
wherein the light amount adjusting member is a phase
plate.

6. The display device according to claim 4,
wherein the light amount adjusting member is a phase
plate.

05927479.081304
T03T80"6242660

7. The display device according to claim 2,
wherein rotation of the light amount adjusting member
is executed by an ultrasonic motor.

5 8. The display device according to claim 3,
wherein rotation of the light amount adjusting member
is executed by an ultrasonic motor.

10 9. The display device according to claim 4,
wherein rotation of the light amount adjusting member
is executed by an ultrasonic motor.

15 10. The display device according to claim 5,
wherein rotation of the light amount adjusting member
is executed by an ultrasonic motor.

20 11. The display device according to claim 6,
wherein rotation of the light amount adjusting member
is executed by an ultrasonic motor.

12. A display device comprising:
a light source for emitting a light;
a light modulation element for modulating the
emitted light; and

25 picture signal inputting means for receiving a
picture signal from the outside and inputting a driving
signal for driving the light modulation element to the

09027479.081301

light modulation element, in which the light modulation element modulates the light based on the picture signal and an image is displayed,

wherein the picture signal inputting means
5 comprises target light amount calculating means and light amount controlling means, the target light amount calculating means being means for calculating an adequate light amount for an image display and the light amount controlling means being means for
10 receiving the signal from the target light amount calculating means and controlling the light modulated by the light modulation element so as to obtain a target light amount; and

wherein the picture signal inputting means changes
15 a signal amplification factor for changing input output conversion characteristics corresponding to an output of the target light amount calculating means.

13. The display device according to claim 12,
20 wherein, when the picture signal has a high luminance, the picture signal inputting means amplifies by an amplification factor not more than the amplification factor in the case of the picture signal having a low luminance.

25

14. The display device according to claim 12,
wherein, when the picture signal has a low luminance,

00922479.081301
TOE T80" 62422660

the signal is amplified by an amplification factor of 1
or more.

0992749.081301
T0ET80" 62422660